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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,139	02/25/2005	Goro Fujita	09812.0485-00000	6282

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EXAMINER

CROW, ROBERT THOMAS

ART UNIT	PAPER NUMBER
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1634

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	02/02/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/526,139

Applicant(s)

FUJITA, GORO

Examiner

Robert T. Crow

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) 7-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 February 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 02/2005.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Applicant's election of Group I in the reply filed on 1 December 2006 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 7-10 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to nonelected inventions, there being no allowable generic or linking claim. Election was made without traverse in the reply filed on 1 December 2006.

Claims 1-6 are under prosecution.

Priority

2. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The Filing Receipt is corrected.

Information Disclosure Statement

3. The Information Disclosure Statement filed 25 February 2005 is acknowledged.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 is indefinite in the recitation "the areas to be detected are arrayed in concentric circles or in a spiral shape" in lines 2-3 of the claim. Claim 1 requires only two areas; namely, the data detecting area and the servo area, which are a unit. Claim 4 requires a plurality of the areas (i.e., both areas) to be

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array in the circumferential direction. It is unclear how either concentric circles or a spiral shape can be formed by only two areas that are already circumferentially arranged.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3 and 6 are rejected under 35 U.S.C. 102(b) as being anticipated by Sheppard et al (U.S. Patent No. 6,143,247, issued 7 November 2000).

Regarding claim 1, Sheppard et al teach a disk-shaped bioassay substrate; namely, in a single exemplary embodiment, a platform for affinity-based binding, wherein the platform is a disk (column 3, lines 15-38). Sheppard et al teach the substrate has a detection chamber where binding is optically detected (column 34, lines 38-48), which is a data-detecting area comprising a reaction area used for a mutual reaction process of substances to be detected and a target substance. Sheppard et al also teach read and write functions are performed on the surface of the disk opposite the surface comprising the remaining components of the disk (column 27, lines 32-41). The opposite area where the read and write functions are performed is a servo area that is not overlapped with the data detection area. The read and write area is an optical data storage area (column 27, lines 32-41).

Regarding claims 2-3, Sheppard et al teach the substrate of claim 1, wherein the reaction area comprises a treated detection surface on which the substances to be detected are fixed; namely, the reaction chamber is coated with a specific binding agent (column 6, lines 13-21).

It is noted that the courts have held that "while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in

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terms of structure rather than function." *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997). In addition, "[A]pparatus claims cover what a device *is*, not what a device *does*." *Hewlett-Packard Co. v. Bausch & Lomb Inc.*, 909 F.2d 1464, 1469, 15 USPQ2d 1525, 1528 (Fed. Cir. 1990) (emphasis in original). Therefore, the various uses recited in claims 2 and 3 (e.g., performing a surface treatment and hybridization) fail to define additional structural elements to the device of claim 1. Because Sheppard et al teach the structural elements of claim 1, claims 2 and 3 are also anticipated by Sheppard et al. See MPEP § 2114.

Regarding claim 6, Sheppard et al teach the substrate of claim 1, wherein the positional information comprises a tracking mark and an address mark; namely, the track widths 72 of Figure 6C are modulated and the geometry of the tracks 75 encode positional information (Figure 6C and column 9, lines 50-60). Thus the track width 72 is the tracking mark and the track geometry 75 is the positional address mark.

8. Claims 1-6 are rejected under 35 U.S.C. 102(b) as being anticipated by Hubbard et al (U.S. Patent No. 6,338,820, issued 15 January 2002).

Regarding claim 1, Hubbard et al teach a bioassay substrate. In a single exemplary embodiment, Hubbard et al teach the disc-shaped bioassay substrate (column 8, lines 25-40), comprising a data detecting area used for a mutual reaction of detectable substances and a target substance; namely, concentrically arranged reactions sites 80 of Figure 9B (column 20, lines 21-32) wherein the reaction sites are the data detecting areas. Hubbard et al also teach the substrate has a servo are disposed in the area that is not overlapped with the data detecting area and optically providing positional information on the data detecting area; namely, identifying marks 82 consisting of a combination of characters and markings (column 20, lines 21-32).

Regarding claims 2 and 3, Hubbard et al teach the substrate of claim 1, wherein the reaction area comprises a treated detection surface on which the substances to be detected are fixed; namely, the data

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detecting areas incorporate material for attachment of probes (column 19, lines 50-62), and the probes are nucleic acid probes for hybridization (column 3, line 63-column 4, line 20).

As noted above, the courts have held that “while features of an apparatus may be recited either structurally or functionally, claims directed to an apparatus must be distinguished from the prior art in terms of structure rather than function. Therefore, the various uses recited in claims 2 and 3 (e.g., performing a surface treatment and hybridization) fail to define additional structural elements to the device of claim 1. Because Hubbard et al teach the structural elements of claim 1, claims 2 and 3 are also anticipated by Hubbard et al. See MPEP § 2114.

Regarding claims 4-5, Hubbard et al teach the substrate of claim 4, wherein a plurality of areas to be detected are arrayed circumferentially; namely, areas 80 are arrayed along the circumference of the substrate in concentric circles (Figure 9B and column 20, lines 21-32).

Regarding claim 6, Hubbard et al teach the substrate of claim 1, wherein the positional information comprises a tracking mark and an address mark; namely, locating (i.e., identifying) marks comprise an indexing marks to identify the reaction site, which is the address, and a tracking mark (column 6, lines 40-48).

Prior Art

9. Yutaka et al (Japanese Patent Application Publication Patent No. 2001-238674, published 9 April 2001) is hereby made of record and not relied upon.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Yutaka et al teach a disc shaped substrate (Figure 1) having DNA probes in spirally arranged spots, which are data detecting areas, and servo areas providing optical position information; namely, tacking marks and address marks (claim 3).

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Conclusion

10. No claim is allowed.

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert T. Crow whose telephone number is (571) 272-1113. The examiner can normally be reached on Monday through Friday from 8:00 am to 4:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ram Shukla can be reached on (571) 272-0735. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**RAM R. SHUKLA, PH.D.
SUPERVISORY PATENT EXAMINER**

Robert T. Crow
Examiner
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